



PNEUMATIC FLOORING TOOL

**P250F**

OPERATING INSTRUCTIONS



**WARNING**

Read these instructions thoroughly before using this tool and keep it handy for reference.

## PRIMATECH PNEUMATIC TOOL P250F

The pneumatic flooring tool P250F is a professional precision tool specially developed for the installation standard 3/4" solid hardwood flooring. It has been designed for easy maintenance where major components can be accessed within seconds without the need of any tool. Weighting only 10.3 pounds (4.7 kg), this ergonomically designed tool makes the installation of hardwood floor very easy, allowing the operator to set and fasten the boards in the standing position. It is offered in 3 different configurations:

- standard L-type cleats in lengths of 1½" (38 mm), 1¾" (44 mm) or 2" (50 mm)
- T-type cleats in length of 1½" (38 mm) or 2" (50 mm)
- ½" crown 15½ga staples in lengths of 1½" (38 mm), 1¾" (44 mm) or 2" (50 mm)



The P250F is built around the **Primpact** valve engine, a breakthrough technology for pneumatic tools. Primpact main features are:

- short nose and compact valve design with an all-around striking surface
- high-speed action and few moving parts, for a powerful yet soft stroke and increased precision.
- reciprocal striking system that regulates the depth of penetration independently from the mallet impact
- finely threaded screw-in cartridge assembly

For best result, only PRIMATECH fasteners should be used. Read carefully these instructions before operating this tool. It is important to understand warnings/cautions and the safety measures to ensure safe use of this tool.

Additional information is available directly from the manufacturer:



1135 Jérémie-Fortin, Québec, QC  
Canada, G1J 1R8

Phone: 1 (800) 363-1962 or 1 (418) 522-7744  
Fax: 1 (418) 522-7466  
email: [support@primatch.ca](mailto:support@primatch.ca)  
web: [www.primatch.ca/support](http://www.primatch.ca/support)

## SAFETY MEASURES

These important guidelines should always be followed to work safely with the PRIMATECH pneumatic tool model P250F:

1. Read these instructions thoroughly before using this tool and keep it handy for reference if necessary.
2. Always keep hands, feet or other body parts away from the fastener ejection area.

3. Never aim the tool in any direction other than the working area.
4. Always carry or manipulate the tool by its handle while the air supply hose is connected.
5. Never hit the head cap of the actuator if the plastic base is not sitting perfectly on the working surface.
6. Never leave the tool laying down on its side while the air supply hose is connected; the tool should always be left on the floor, standing on its plastic base.
7. Do not alter or remove safety.
8. Always disconnect the air supply hose when the tool is not in use or when move to another work area.
9. Never service or repair the tool, clear obstructions or make adjustments while the air supply hose is connected.
10. Only compressed air should be used to power this tool; do not exceed 110 psi (7.6 bar).
11. Never use oxygen or any other compressed gas as a power source for this tool.
12. Always wear OSHA-required Z-87 safety glasses with side shields.
13. Always wear proper ear and feet protection while the air supply hose is connected.
14. Always remove fasteners from the feeder channel before servicing tool.



**DO NOT REMOVE OR ALTER SAFETY. NEVER DEPRESS THE SAFETY CONTACT WITH YOUR HANDS WHEN TOOL IS CONNECTED TO AIR SUPPLY. EXTREME CAUTION IS ADVISED WHEN USING THIS TOOL.**

## CONNECTION & AIR SUPPLY SYSTEM

To ensure maximum performance and efficiency, and also a minimum of care, the PRIMATECH pneumatic tool requires clean, dry air. It is necessary to use a filter and a pressure regulator.

This tool needs a detachable male coupler with 3/8" NPT male threads. The use of a 3/8" (1 cm) diameter air supply hose is recommended. A smaller hose or a hose longer than 50' (15 m) could cause a pressure drop when the tool is activated repeatedly.



**ALWAYS USE A FREE-FLOW CONNECTION FOR THE COMPRESSED AIR SUPPLY TO PREVENT THAT THE TOOL STAYS CHARGED AFTER DISCONNECTING THE AIR SUPPLY HOSE.**



**UNLOAD TOOL BEFORE CONNECTING AIR TO PREVENT ACCIDENTAL DISCHARGE.**



**AFTER MOVING TOOL TO A DIFFERENT WORK AREA, OR AFTER ANY MAINTENANCE TO THE TOOL, ALWAYS ENSURE PROPER OPERATION BY ACTUATING TOOL SEVERAL TIMES WITHOUT FASTENERS OVER THE SUBFLOORING.**

Dirt, dust, and other particles in the air supply can cause sluggish operation or premature wear of many components of the tool. Drain water from the compressor tank regularly. The compressor start-stop limits should be set to deliver an air pressure of at least 100 psi (7 bar) at all time. Consult the compressor manual or dealer for instructions on how to make

this adjustment.

At 80 psi (5.5 bar) and 100 hits per minute, this tool consumes approximately 4.7 cu.ft (130 ℓ) of air per minute at 70°F (21°C). Higher air pressure will increase the consumption of compressed air.

This tool is designed to be operated with a compressed air pressure of 80 to 100 psi (5.5-7.0 bar). An air pressure of 90 psi (6.2 bar) is adequate for most situations, although occasionally, a higher pressure could be necessary, for example to use the tool with different species of harder wood. In these more difficult cases, the compressed air pressure can be increased up to 100 psi (7.0 bar). It is very important not to exceed this maximum pressure to prevent leaks, premature wear or damages to the tool.

Check the compressed air supply hose before connecting to ensure that they are free from dirt or particles that can alter the performance of the tool. Pay special attention to any air leaks. Do not use a compressed air pressure higher than 110 psi (7.6 bar). Higher pressure can cause premature wear or damage to certain components. After assembly, check all the connections to prevent the leaks and to have maximum efficiency.



**TO PREVENT ACCIDENTAL DAMAGE TO THE FINISHED SURFACE OF THE INSTALLED FLOOR, REST THE TOOL ONTO THE SUBFLOORING WHEN CONNECTING AIR, LOADING TOOL OR PERFORMING ANY MAINTENANCE TO THE TOOL.**

## LOADING THE TOOL

Several feeder channel configurations are available for this tool. Conventional feeder channels come with an integrated pusher that must be engaged behind the nails at all time. For those, simply insert a row of PRIMATECH's cleats or staples inside the feeder channel and pull back on the plastic tab gently until it engages behind it. To release, simply squeeze the tab with your thumb and index and allow the spring to recoil slowly. The clip must be released slowly to prevent damage.

**LOADXTEND** Tools fitted with the LOADXTEND (Patent Pending) automatic feeder channel hold & feed 200 nails in an assembly no longer than a conventional one. Its exclusive pusher locks into a pre-armed position, allowing nails to be fed by gravity until it automatically engages behind. With only one strip of nails, the LOADXTEND feeder channel is operated in the same way by simply pulling the pusher to engage it behind the nails.

The real time-saving feature is to allow at any time to fill or add nails into the LOADXTEND feeder channel, up to 200 nails. Simply pull the pusher all the way until it locks into its pre-armed position and ensure that the nails are fully pushed into the nail ejection area. The pusher will automatically engage behind the nails as they pass-by.



**USE ONLY THE TYPE OF FASTENERS IDENTIFIED ON THE FEEDER CHANNEL. THE USE OF ANY OTHER TYPE OF FASTENERS WILL DAMAGE THE TOOL.**

## OPERATION

Unload tool and rest it onto the subflooring. Connect the hose and cycle tool once or twice without fastener. After loading the tool, the PNEUMATIC TOOL model P250F is ready for use.

Use only the 2.5 lbs (1.1 kg) hammer supplied with the tool. The use of other type of hammers may affect performance. The rubber face of the hammer can be used with care to help position the boards.

With the flooring firmly in place, position the tool onto the flooring and apply downward pressure to ensure proper seating of the fastener. Strike the head cap P-601 with the hammer to activate the tool, **Use only the RUBBER FACE of the hammer to activate the tool. Using the steel end will damage the tool and void the warranty.** If wood is slightly twisted, hitting the tool with more force will assist in pulling the board up snugly. **NEVER** strike the head cap when the tool is not sitting on the working surface.



**OPERATING THE TOOL WHEN THE SAFETY CONTACT IS NOT FULLY DEPRESSED WILL CAUSE PREMATURE WEAR OR DAMAGE TO THE DRIVING BLADE, PISTON AND CYLINDER.**

Eye protection is recommended and should be worn by the operator and other in working area. Accidental ejection of fasteners or wood debris could cause severe eye injury.



In some environments, ear protection might be required, as working condition may include exposure to high noise levels which lead to hearing damage.



Wearing safety boots and safety hat is also highly recommended.



NOTE: All the personal protection equipments must meet national standards.



Be it raw, factory finished or engineered, hardwood is a natural material subject to various factors, such as humidity, subflooring, installation procedure, type of tools, fasteners, *etc.* Installer should always ensure optimal surface preparation, comply with all manufacturer's recommendations and conduct a pre-installation test prior beginning any installation.



**BEFORE STARTING AN INSTALLATION, FASTEN DOWN FEW BOARDS TO ASCERTAIN THAT YOU ARE USING THE RIGHT FASTENER AND THAT THE TOOL IS PROPERLY ADJUSTED.**

## PREVENTIVE MAINTENANCE

This tool requires minimal lubrication. Use only detergent-free oil such as Primatch P-090. Few drops of oil weekly in the air inlet is sufficient. Other



types of lubricant may degrade the seals.

Check periodically to make sure that all screws are tight. Pay particular attention to the two screws holding the feeder channel as well as the screws and nuts on the feeder channel assembly who might loosen up over time. The use of an medium strength adhesive sealant is recommended.

## MAINTENANCE & REPAIR

Most adjustments to the tool can be made with the 3/16" Allen wrench supplied with the tool.

Disassembly of the tool must be done in a clean environment. Some parts can be easily damaged if disassembled with improper tools or by inadequate methods. Maintenance should only be performed by trained personnel. Use only genuine PRIMATECH replacement parts.



**TO PREVENT INJURY, ALWAYS DISCONNECT THE AIR SUPPLY HOSE WHEN SERVICING OR DISASSEMBLING THE TOOL.**

When servicing the tool, do not twist or force any parts. Damage may result from such abuse. If parts do not come loose easily, contact your PRIMATECH distributor for more information.

When opening the tool for maintenance, always clean all components of dirt, grit, or particles. Inspect the tool carefully for broken parts or excessive wear, and replace if necessary. When ordering parts, be sure to specify the right part number, and also the tool serial number.

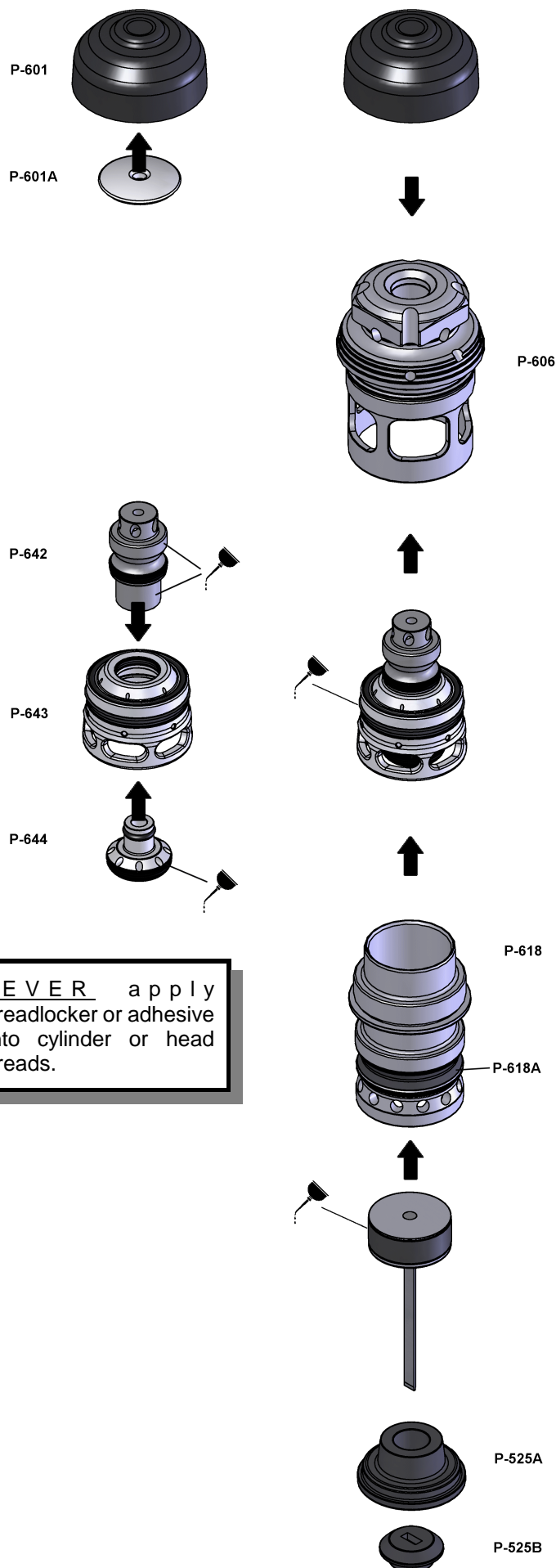


**AFTER ANY MAINTENANCE TO THE TOOL, REMOVE ALL FASTENERS BEFORE CONNECTING AIR AND ACTUATE THE TOOL REPEATEDLY OVER A PIECE OF WOOD OR SUBFLOORING TO INSURE PROPER OPERATION.**

## ASSEMBLING THE VALVE

All pneumatic components required are packed in a cartridge assembly which is simply inserted into the tool. This section describes how to assemble all the components together. However, it is usually not necessary to completely disassemble the valve. Refer to next section, "*CLEANING THE VALVE*" for more information on how to open the tool for regular maintenance. The following procedure assumes that the gate/foot assembly (P-429) along with the resting block P-534 are already installed. Refer to the "*Replacement Parts*" document for a complete list and schematic of the tool.

1. It is usually not required to separate the head disk P-601A from the head cap P-601. If necessary, insert the head disk firmly in place into the head cap.
2. Align the head cap P-601 with the two pins on the head P-606 and snap the cap in place. It is usually not required to remove the head cap from the head.





3. Check the condition of all rings and seals on the actuator P-642, actuator cap P-644 and main valve P-643.
4. Lightly lubricate actuator P-642 as shown and insert it into valve P-643.
5. Lightly lubricate the permanent seal of actuator cap P-644 as shown. Do not lubricate the small o-ring (see part P-644C on schematic). Insert the actuator cap as shown and forcibly snap it into the actuator P-642
6. Insert the valve sub-assembly completely into the head P-606.
7. Screw the cylinder completely onto the head body P-606 and tighten firmly by hand. Take care not to damage the threads. Pull down the valve P-643 to sit it onto the cylinder.
8. Check that the band-valve P-618A is properly installed onto the main cylinder P-618.

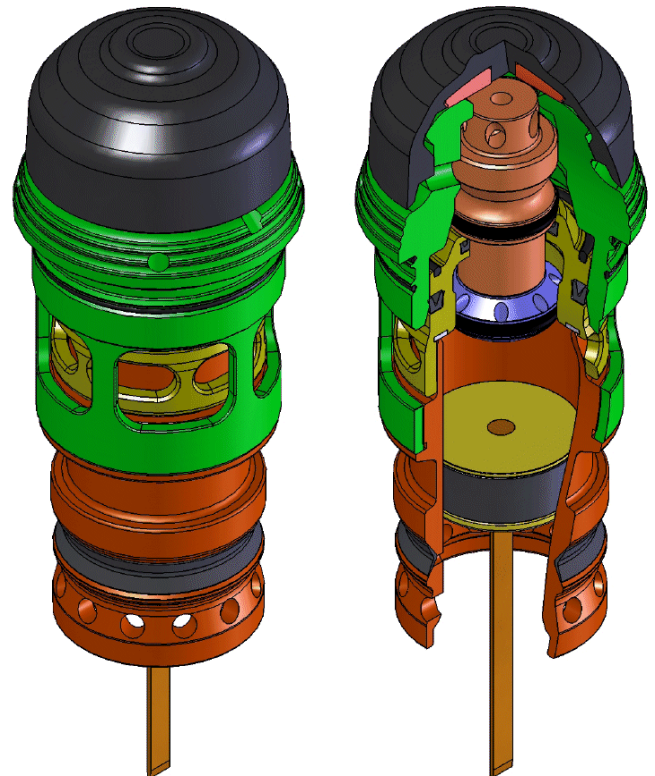


**ALWAYS CHECK THAT THE CYLINDER IS COMPLETELY SCREW-ON THE HEAD BEFORE INSERTING THE ASSEMBLY INTO THE TOOL. THE CYLINDER WILL LOOSEN-UP WHEN THE CARTRIDGE IS TAKEN-OFF THE TOOL.**



**ALWAYS PULL DOWN THE VALVE AGAINST THE CYLINDER BEFORE INSERTING THE HEAD ASSEMBLY.**

9. Check that the piston sub-assembly, including rings and driving blade, is sliding easily into the cylinder P-618. It should offer some resistance, but if it moves too easily, it may be required to replace the piston wear-ring P-622A.
10. Insert the seal bushing P-525B in the lower section of main body P-606 and engage it onto the upper portion of the gate/foot assembly (P-429). A flat screwdriver can help location the seal bushing correctly. Use the wooden handle of the hammer to tap the seal bushing completely in place. It is usually not necessary to pull-out the seal bushing P-525B for maintenance.
11. With the tool in the upright position, push the bumper P-525A in place, indexed onto the seal bushing P-525B and use the wooden handle to seat the bumper in position.
12. Insert the piston sub-assembly into the main body P-216 and engage the driving blade P-423 in the seal bushing opening. Depress the safety contact P-562 to ensure that the driving blade has engaged the gate/foot assembly guiding channel.
13. Loosen the lock P-616D and insert the whole head assembly into the main body P-216; the main cylinder P-618 engaging onto the piston assembly. Screw the head assembly completely. Take care not to damage the threads. Rotate the head lock P-616D clockwise and tighten with moderate force.



Complete 'cartridge' assembly



**NEVER LOCK THE HEAD OR CYLINDER IN A VISE. IF MORE TORQUE IS NECESSARY, INSERT THE LONG ARM OF AN ALLEN KEY INTO ONE OF THE SIDE HOLES OF THE HEAD AND/OR A ROUND SCREWDRIVER THROUGH THE LARGE HOLES OF THE CYLINDER. ALWAYS (UN)TIGHTEN BY HAND.**



**NEVER APPLY THREADLOCKER OR ADHESIVE ONTO CYLINDER OR HEAD THREADS.**

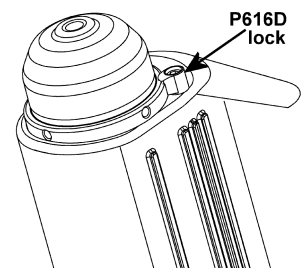


**IT IS MOST IMPORTANT THAT THE MAIN CYLINDER BE FULLY SCREWED & TIGHTENED ONTO THE HEAD ASSEMBLY BEFORE BEING INSERTED INTO THE MAIN BODY.**



**AFTER REASSEMBLY, ALWAYS ACTUATE THE TOOL REPEATEDLY WITHOUT FASTENERS AGAINST A PIECE OF WOOD TO INSURE PROPER OPERATION.**

This tool features a head lock to maintain firmly in place the head assembly during operation. Before inserting the head assembly, ensure that the P-616D lock is free to swivel and rotate it away from the head opening. After inserting the head assembly in place, rotate the P-616D lock and tighten with the Allen key using moderate force.



To remove the head assembly, simply unscrew the P-616D screw ¼ turn and rotate it counter-clockwise.

## CLEANING THE VALVE

If the tool becomes sluggish or does not set the fastener, it may indicate excessive dirt, dust, other particles, or even water, in the head assembly, thereby impeding the cycling of the valve. The first step in troubleshooting is to clean up the head assembly.

1. Loosen (¼ turn) the head lock P-616D.
2. Unscrew the head assembly P-606 and take it out of the tool. The long arm of a Allen wrench may be inserted into one of hole at the base of head P-606 to help unlock the assembly.
3. Pull-out the piston assembly and unscrew the cylinder P-618. Perform a visual inspection of the driving blade P-423, the wear-ring P-622A and the inner surface of the cylinder P-618. Do not remove the driving blade from the piston.
4. Pull-out the valve assembly P-643 and perform a visual inspection of all rings. Check that the actuator assembly P-642/P-644 is sliding easily on valve P-643. Clean and lubricate lightly. It is usually not necessary to take apart the actuator assembly.
5. If necessary, actuator cap P-644 may be unsnapped from actuator P-642 by inserting the long arm of an Allen wrench through the hole on top of the actuator and using a hammer with moderate force to get the parts apart.
6. Clean the inside wall of the head body P-606 and lubricate lightly with a non-detergent oil. Check the o-ring P-606A. It is generally not necessary to remove the head cap P-601.

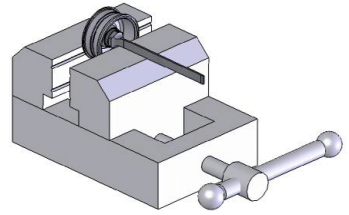
## REPLACING THE DRIVING BLADE

The driving blade is sold separately or supplied as a complete subassembly with the piston P-622.

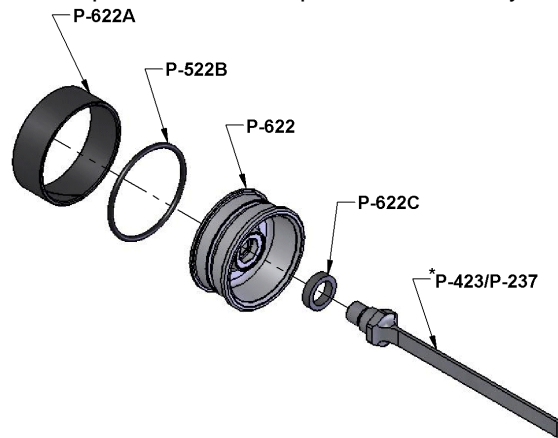
1. Unscrew the head assembly P-606 and take it out of the tool.
2. Pull-out the piston assembly from the cylinder. Remove any debris and assess condition of cylinder P-618. If marked or grouged, use a fine sand paper to smooth out walls. The piston P-622 must be allowed to move without restriction.

Skip to step (7) if you are replacing with a piston/driving blade subassembly.

3. Lock the piston in a vise, using a rag to prevent scoring. Always use the top and bottom faces to secure the piston in place.
4. Remove the broken driver using a 1/2" close wrench.
5. Put one drop of medium strength adhesive sealant onto the threads of the piston P-622.
6. Insert the P-622C lock washer and screw the new driving blade onto the piston P-622. Tighten very hard (140 lb-in minimum). Make sure that the lock washer P-622C is completely flattened.
7. Insert the piston sub-assembly into the main body P-216 and engage the replacement driving blade in the seal bushing opening. Depress the safety contact P-562 to ensure that the driving blade has engaged the gate/foot assembly guiding channel.



- Note: select the appropriate driving blade  
use P-423 driving blade for the "L" or "T" nailer configurations  
use P-237 driving blade for the stapler configuration
8. Tighten the cylinder P-618 onto the head P-606 and follow the procedure to complete the assembly of the head.



## TROUBLESHOOTING

This section will help to diagnose common problems and will give suggestions to solve them. Consult our on-line Technical Support site at [www.primatech.ca/support](http://www.primatech.ca/support) for updated documents and more tips.



**TO PREVENT INJURY, ALWAYS DISCONNECT THE AIR SUPPLY HOSE WHEN ADJUSTING, SERVICING OR DISASSEMBLING THE TOOL.**

### FIRST: CHECK THE COMPRESSED AIR SUPPLY

Many of problems come from a faulty or inadequate compressed air supply system. Before attempting to repair the tool, the following points should be checked:

- a) check the pressure at the output of the compressor; adjust to 80-100 psi (5.5-7.0 bar) as required
- b) check the tank pressure of the compressor & adjust the start/stop limits
- c) check the air delivery system; a 3/8" hose is recommended
- d) use fewer tools simultaneously; do not exceed the capacity of the compressor or of the delivery system
- e) drain water from the compressor

### SECOND: CHECK FOR AIR LEAKS

At rest, this tool should not have any air leak. Before attempting to repair the tool and replace parts, check the following:

- a) Check rings P-606A, P-516B, P-009, P-543A and P-543D; replace if necessary
- b) The top edge of main cylinder P-618 should be free of dents.
- c) Clean & lubricate the head assembly; re-assemble the head assembly carefully
- d) Check interior of head P-606 for scratches

### HEAD ASSEMBLY LOOSENS UP DURING OPERATION

Remove the head assembly and insure that the cylinder is fully screwed on. Re-insert the head assembly in place and insure that the head lock P-616D is correctly in place.

### TOOL DOES NOT DRIVE FASTENERS

- a) Check that there are fasteners in the feeder channel
- b) Make sure the feeder clip is engaged behind the fasteners
- c) Check the front end of the feeder channel for burrs or damages
- d) Check the safety mechanism
- e) Check if the driver is stuck in down position (see 6 below)
- f) Check for obstruction in the fastener ejection area

### FASTENERS ARE NOT SET COMPLETELY

- a) First, verify air supply (see 1 above)
- b) Clean tool and lubricate tool; particularly the head assembly
- c) Increase air pressure when working with harder woods; do not exceed 110 psi (7.6 bar)
- d) Check the driving blade for broken end
- e) Check piston wear-ring P-622A; replace if piston is sliding to easily
- f) Check seal bushing P-525B
- g) Check the adjustment of the base and ensure the tool is well seated on the floor while ejecting

### TOOL DOES NOT ACTIVATE

- a) Check the air supply
- b) Inspect the head assembly and check all seals; reassemble carefully

### DRIVING BLADE DOES NOT RETURN

- a) Check for jammed fastener or obstruction
- b) Check gate/foot and end of feeder channel for damages or burrs.
- c) Check the driving blade P-423
- d) Inspect the head assembly and check all seals; clean & lubricate.
- e) Check band-valve P-618A.
- f) Check that the bumper P-525A and seal bushing P-525B are in place.

### BROKEN OR WORN DRIVING BLADE

Replace the driving blade P-423. Failure to follow the instructions carefully will result in repeated breakage of the driving blade.

### POOR FEED OR TOOL JAMMING

- a) Make sure the feeder clip engages behind the fasteners
- b) Check the gate/foot assembly for damages or wear
- c) Check the front end of the feeder channel for burrs or damages

### OTHER PROBLEMS

Contact Primatech:

by phone

1 (800) 363-1962

1 (418) 522-7744

by email

[support@primatech.ca](mailto:support@primatech.ca)

consult our on-line Technical Support site at

<http://www.primatech.ca/support>

## **TOOL WARRANTY AND LIMITATIONS**

Primatch warrants that newly purchased fastening tools, parts and accessories will be free from defects in material and workmanship (excluding wear parts) for the period shown below, after the date of purchase by the original user as evidenced by a valuable purchase invoice.

ONE-YEAR LIMITED WARRANTY will apply to all parts, except those subjected to normal wear

SEVEN-YEAR EXTENDED LIMITED WARRANTY covers tool casing.

## **WARRANTY STATEMENT**

Primatch 's sole liability hereunder will be to replace any part or accessory which proves to be defective within the specific time period. Any replacement part or accessories provided in accordance with this warranty will carry a warranty for the balance of the period of warranty applicable to the part it replaces. When repair or replacement of part or tool is required, the complete tool or part(s) must be returned to Primatch or at such authorized warranty service point of Primatch, transportation prepaid, with a copy of proof of purchase evidencing that the part or tool is within the warranty period.

This warranty is void as to any tool which has been subjected to misuse, abuse, accidental or intentional damage, used with fasteners not meeting Primatch specifications, size or quality, improperly maintained, repaired with other than genuine Primatch replacement parts, damaged in transit or handling, or which, in Primatch 's sole opinion, has been altered, modified or repaired in a way that affects or detracts from the performance of the tool.

PRIMATECH MAKES NO WARRANTY, EXPRESSED OR IMPLIED, RELATING TO MERCHANTABILITY, FITNESS, OR OTHERWISE, EXCEPT AS STATED ABOVE, and primatch 's liability AS STATED ABOVE AND AS ASSUMED ABOVE is in lieu of all other warranties arising out of, or in connection with, the use and performance of the tool, except to the extent otherwise provided for by applicable law.

PRIMATECH SHALL IN NO EVENT BE LIABLE FOR ANY DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES WHICH MAY ARISE FROM LOSS OF ANTICIPATED PROFITS OR PRODUCTION, SPOILAGE OF MATERIALS, INCREASED COST OF OPERATION, OR OTHERWISE. Any liability, if any, connected with the use of the tool shall terminate upon the expiration of the warranty period specified above.